(c) an olefin content less than [8] 10 vol.%,

(d) a 90% D-86 distillation point less than 300° F., and

(e) an octane value of at least 87;

and thereafter

(2) combusting the unleaded gasoline in said engine;

(3) [(B)] contacting at least some of the resultant engine exhaust emissions with the catalytic converter; and

(4) [(C)] discharging the exhaust emissions from the catalytic converter to the atmosphere.

92. (Amended) A method as defined in claim 91 wherein the unleaded gasoline has an olefin content less than [6] 8 volume percent.

94. (Thrice Amended) A method as defined in claim 91 [83] wherein the gasoline has a Reid Vapor Pressure no greater than 6.8 psi and a maximum D-86 10% Distillation Point of 140° F.

96. (Twice Amended) A method for reducing the amount of at least one gaseous pollutant emitted in automotive exhaust emissions, comprising:

[(A)] (1) introducing into a spark-induced automotive internal combustion engine in an automotive vehicle equipped with a catalytic converter for treating exhaust emissions, an unleaded gasoline having

(a) a Reid Vapor Pressure less than 7.0 psi,

(b) a 50% D-86 distillation point no greater than 210° F.,

(c) an olefin content less than 10 vol.%,

(d) a 90% D-86 distillation point less than 300° F.,

(e) an octane value of at least 87; and

(f) a 10% D-86 distillation point no greater than 158° F.; and

[(B)] (2) combusting the gasoline in said engine to yield exhaust emissions, which, after treatment in the catalytic converter, have, in comparison to combusting according to the Federal Test Procedure a fuel having the properties for blend A/O AVE shown in TABLE 2, a reduced amount of at least one gaseous pollutant selected from the group consisting of NO_x, CO, and unburned hydrocarbons.

99. (Thrice Amended) A method as defined in claim 91 wherein the unleaded gasoline has [a Reid Vapor Pressure no greater than 6.8 psi, a D-86 10% Distillation Point no greater than 130° F., and] an olefin content less than [2] 6 volume percent.

100. (Amended) The method [as in any one of the preceding claims,] of claim 91, 94, 96 or 99 in which the unleaded gasoline being combusted in said engine contains one or more added oxygenates and meets all the requirements of at least one of the Class A, Class B, Class C, Class D, and Class E gasolines set forth in TABLE 1.

105. (Amended) The method of claim 100 wherein said unleaded gasoline contains one or more oxygenates in a total oxygen concentration between the equivalent of about 10.1 and [17.2] 14.9 vol.% methyl tertiary butyl ether.

106. (Amended) [In a geographical region with significant air pollution caused in substantial part by the emission of exhaust gases from the operation of automobiles within said region, the method of aiding in the reduction of air pollution caused by such automobiles comprising the steps of:

(1) producing an unleaded gasoline having:

(a) a Reid Vapor Pressure less than 7.0 psi;

(b) a 50% D-86 distillation point no greater than 210 °F;

(c) an olefin content less than 10 volume percent;

(d) a 90% D-86 distillation point less than 300 °F.; and

(e) an octane value of at least 87;

(2) delivering said unleaded gasoline to a substantial number of gasoline service stations distributed within the region; and

(3) dispensing the unleaded gasoline from said gasoline service stations into a substantial number of automobiles having catalytic converters] The method of claim 105 wherein said unleaded gasoline contains greater than 65 volume percent paraffins.

107. (Amended) The method of claim [106 performed during a time period of one month wherein the amount of said unleaded gasoline dispensed in step (3) during said month is the equivalent of at least 100,000 gallons of gasoline per day] 105 wherein said unleaded gasoline contains greater than 72 volume percent paraffins.

108. (Amended) The method of claim [106 performed during a time period of one week wherein the amount of said unleaded gasoline dispensed in step (3) during said week is at least 10,000,000 gallons of gasoline] 100 wherein said unleaded gasoline contains greater than 65 volume percent paraffins.

117. (Amended) [In a geographical region with significant air pollution caused in substantial part by the emission of exhaust gases from the operation of automobiles within said region, the] A method of aiding in [the reduction of] minimizing air pollution caused by [such] automobiles comprising the steps of:

(1) producing in an oil refinery a substantial amount of [an] unleaded gasoline selected from the group consisting of:

(a) unleaded gasolines having a Reid Vapor Pressure less than 7.0 psi, an octane value of at least 87, a 50% D-86 distillation point no greater than 210 °F, and a paraffin content greater than 72 volume percent;

(b) unleaded gasolines having a Reid Vapor Pressure less than 7.0 psi, an octane value of at least 92, a 50% D-86 distillation point no greater than 210 °F, and a paraffin content greater than 65 volume percent;

(c) unleaded gasolines having a Reid Vapor Pressure less than 7.0 psi, an octane value of at least 87, a 50% D-86

distillation point less than 193 °F, and an olefin content less than 10 volume percent;

(d) unleaded gasolines having a Reid Vapor Pressure less than 7.0 psi, an octane value of at least 87, a 50% D-86 distillation point no greater than 210 °F, and an olefin content less than 1 volume percent; and

(e) unleaded gasolines having a Reid Vapor Pressure less than 7.0 psi, an octane value of at least 87, a 50% D-86 distillation point no greater than 210 °F, an olefin content less than 10 volume percent, and a 90% D-86 distillation point less than 300 °F. [one or more added oxygenates, said oxygenates being present but in an amount yielding a total oxygen concentration no greater than the equivalent provided by 17.2 volume percent methyl tertiary butyl ether];

(2) delivering said unleaded gasoline to a substantial number of gasoline service stations distributed within a geographical [the] region with significant air pollution caused in substantial part by the emission of exhaust gases from the operation of automobiles within said region; and

(3) dispensing the unleaded gasoline from said gasoline service stations into a substantial number of automobiles for subsequent combustion therein, said automobiles having catalytic converters for treating exhaust emissions.

128. (Amended) The method of claim 117 [, 118,] or 119 [, or 120] wherein said gasoline produced in step (1) is gasoline (c).

131. (Amended) The method of claim 117 [, 118, 119, or 120] wherein said gasoline produced in step (1) is gasoline (d).

134. (Amended) The method of claim 133 wherein said unleaded gasoline produced in step (1) contains one or more oxygenates in a total oxygen concentration between the equivalent of about 10.1 and [17.2] 14.9 vol.% methyl tertiary butyl ether.

135. (Amended) The method of claim [133] 134 wherein the gasoline produced in step (1) has a paraffin content greater than 65 volume percent.

136. (Amended) The method of claim [133] 134 wherein said unleaded gasoline produced in step (1) contains less than 8 volume percent olefins [and contains one or more oxygenates in a total oxygen concentration between the equivalent of 10.1 and 14.9 vol. % methyl tertiary butyl ether].

137. (Amended) The method of claim 136 wherein said unleaded gasoline produced in step (1) contains less than 6 volume percent olefins but more than 72 volume percent paraffins.

138. (Amended) The method of claim [136] 117, 118, 119, or 120 wherein said unleaded gasoline produced in step (1) contains [less than 1 volume percent olefins] one or more added oxygenates.

139. (Amended) The method of claim [133] 117, 118, 119, or 120 wherein [the 90% D-86 distillation point of] said unleaded gasoline produced in step (1) [is no greater than 315 °F.] contains one or more oxygenates in a total oxygen concentration between the equivalent of about 10.1 and 14.9 vol.% methyl tertiary butyl ether.

142. (Amended) A method for [reducing] aiding in minimizing the amount of at least one gaseous pollutant selected from the group consisting of NOx, CO, and hydrocarbons emitted in automotive exhaust emissions, comprising:

(1) introducing, into a spark-induced automotive internal combustion engine in an automotive vehicle equipped with a catalytic converter for treating exhaust emissions, an unleaded gasoline selected from the group consisting of:

(a) unleaded gasolines having a Reid Vapor Pressure less than 7.0 psi, an octane value of at least 87, a 50% D-86 distillation point no greater than 210 °F, and a paraffin content greater than 72 volume percent;

(b) unleaded gasolines having a Reid Vapor Pressure less than 7.0 psi, an octane value of at least 92, a 50% D-86 distillation point no greater than 210 °F, and a paraffin content greater than 65 volume percent;

(c) unleaded gasolines having a Reid Vapor Pressure less than 7.0 psi, an octane value of at least 87, a 50% D-86 distillation point less than 193 °F, and an olefin content less than 10 volume percent;

(d) unleaded gasolines having a Reid Vapor Pressure less than 7.0 psi, an octane value of at least 87, a 50% D-86 distillation point no greater than 210 °F, and an olefin content less than 1 volume percent; [and]

(e) unleaded, oxygenated gasolines having a Reid Vapor Pressure less than [7.0] 7.5 psi, an octane value of at least 87, a 10% D-86 distillation point no greater than 158 °F, a 50% D-86 distillation point no greater than [210 °F,] 215 °F, a 90% D-86 distillation point no greater than 315 °F., a paraffin content greater than 65 volume percent, and an olefin content less than 10 volume percent [, and one or more added oxygenates, said

oxygenates being present but in an amount yielding a total oxygen concentration no greater than the equivalent provided by 17.2 volume percent methyl tertiary butyl ether];

(f) unleaded, oxygenated gasolines of octane value at least 87 with a Reid Vapor Pressure less than 7.0 psi, a 10% D-86 distillation point no greater than 158° F., a paraffin content greater than 65 volume percent, and a 50% D-86 distillation point no greater than 215 °F.;

(g) unleaded, oxygenated gasolines of octane value at least 87 with a Reid Vapor Pressure less than 7.0 psi, a 10% D-86 distillation point no greater than 158° F., and a paraffin content greater than 70 volume percent; and

(h) unleaded, oxygenated gasolines of octane value at least 87 with a Reid Vapor Pressure less than 7.0 psi, a 10% D-86 distillation point no greater than 158° F., a 50% D-86 distillation point no greater than 215 °F. an olefin content less than 10 volume percent, and the oxygenates are present in a total oxygen concentration no greater than the equivalent provided by about 14.9 volume percent methyl tertiary butyl ether;

(2) combusting the gasoline in said engine, and

(3) passing emissions from said engine through the catalytic converter to be treated therein.

148. (Amended) The method of claim 147 wherein said unleaded gasoline [contains greater than 65 volume percent paraffins] has a 90% D-86 distillation point no greater than 300° F.

149. (Amended) The method of claim 143 or 144 [, 144, 145, 147 or 148] wherein said unleaded gasoline contains less than 6 volume percent olefins and the 90% D-86 distillation point is no greater than 315°F.

150. (Amended) The method of claim [149] 147 wherein said unleaded gasoline contains one or more oxygenates in a total oxygen concentration between the equivalent of about 10.1 and 14.9 vol.% methyl tertiary butyl ether.

Please add the following claims:

151. The method of claim 150 wherein the unleaded gasoline contains greater than 72 volume percent paraffins.

152. The method of claim 150 wherein the Reid Vapor Pressure is less than 7.0 psi.

153. The method of claim 152 wherein the unleaded gasoline contains greater than 72 volume percent paraffins.

154. A method of aiding in minimizing air pollution caused by automobiles comprising the steps of:

(1) producing in an oil refinery a substantial amount of unleaded, oxygenated gasoline selected from the group consisting of

(a) unleaded, oxygenated gasolines of octane value at least 87 with a Reid Vapor Pressure less than 7.5 psi, a 10% D-86 distillation point no greater than 158° F., a 50% D-86 distillation point no greater than 215 °F., a 90% D-86 distillation point no greater than 315 °F., a paraffin content greater than 65 volume percent, and an olefin content less than 10 volume percent;

(b) unleaded, oxygenated gasolines of octane value at least 87 with a Reid Vapor Pressure less than 7.0 psi, a 10% D-86 distillation point no greater than 158° F., a paraffin content greater than 65 volume percent, and a 50% D-86 distillation point no greater than 215 °F.;

(c) unleaded, oxygenated gasolines of octane value at least 87 with a Reid Vapor Pressure less than 7.0 psi, a 10% D-86 distillation point no greater than 158° F., and a paraffin content greater than 70 volume percent; and

(d) unleaded, oxygenated gasolines of octane value at least 87 with a Reid Vapor Pressure less than 7.0 psi, a 10% D-86 distillation point no greater than 158° F., a 50% D-86 distillation point no greater than 215 °F., an olefin content less than 10 volume percent, and the oxygenates are present in a total oxygen concentration no greater than the equivalent provided by about 14.9 volume percent methyl tertiary butyl ether;

(2) delivering said unleaded gasoline to a substantial number of gasoline service stations distributed within a geographical region with significant air pollution caused in substantial part by the emission of exhaust gases from the operation of automobiles within said region; and

(3) dispensing the unleaded gasoline from said gasoline service stations into a substantial number of automobiles for subsequent combustion therein, said automobiles having catalytic converters for treating exhaust emissions.

155. The method of claim 154 wherein the gasoline produced in step (1) is gasoline (a).

156. The method of claim 155 wherein the gasoline produced in step (1) comprises greater than 72 volume percent paraffins.

157. The method of claim 154 wherein the gasoline produced in step (1) is gasoline (b).

158. The method of claim 154 wherein the gasoline produced in step (1) is gasoline (c).

159. The method of claim 154 wherein the gasoline produced in step (1) is gasoline (d).

160. The method of claim 159 wherein the gasoline produced in step (1) has a 50% D-86 distillation point no greater than 210° F.

161. The method of claim 159 wherein the gasoline produced in step (1) has a paraffin content greater than 65 volume percent.

162. The method of claim 161 wherein said unleaded gasoline produced in step (1) contains less than 6 volume percent olefins.

163. The method of claim 162 wherein said unleaded gasoline produced in step (1) has a paraffin content greater than 72 volume percent.

164. The method of claim 117, 157, 158, 159, 161, or 163 wherein the 90% D-86 distillation point of said gasoline produced in step (1) is no greater than 315 °F.

165. The method of claim 164 wherein the 10% D-86 distillation point of said gasoline produced in step (1) is no greater than 140 °F.

166. The method of claim 165 wherein the Reid Vapor Pressure of said unleaded gasoline is no greater than 6.8 psi.

167. The method of claim 166 wherein the 50% D-86 distillation point of said gasoline produced in step (1) is less than 200 °F.

168. The method of claim 166 wherein the 10% D-86 distillation point of said gasoline produced in step (1) is no greater than 135° F.

169. The method of claim 168 wherein the 50% D-86 distillation point of said gasoline produced in step (1) is less than 200 °F.

170. The method of claim 154, 159, 161 or 163 performed during a time period of one month wherein the amount of said unleaded gasoline dispensed in step (3) during said month is the equivalent of at least 100,000 gallons of gasoline per day.

171. The method of claim 170 wherein the 90% D-86 distillation point of said gasoline produced in step (1) is no greater than 315 °F.

172. The method of claim 154, 155, 157, 158, 159, 160, or 163 performed during a time period of one week wherein the amount of said unleaded gasoline dispensed in step (3) during said week is at least 10,000,000 gallons of gasoline.

173. The method of claim 172 wherein the 10% D-86 distillation point of said gasoline produced in step (1) is no greater than 140 °F. and the 90% D-86 distillation point of said gasoline produced in step (1) is no greater than 315 °F.

174. The method of claim 154 wherein the amount of said unleaded gasoline dispensed in step (3) over the course of one

month is equivalent to at least 25% of the amount dispensed by all service stations in said region for said month.

175. The method of claim 117, 154, 155, 157, 158, 159, 160, 161, or 163 wherein, over a six month time period, the amount of said unleaded gasoline produced in step (1) is the equivalent of at least 25% of the total of the refinery's daily gasoline production over said six month time period.

176. The method of claim 175 wherein the 90% D-86 distillation point of said gasoline produced in step (1) is no greater than 315 °F. and the 10% D-86 distillation point of said gasoline produced in step (1) is no greater than 140 °F.

177. The method of claim 176 wherein the 90% D-86 distillation point of said gasoline produced in step (1) is no greater than 300 °F.

178. The method of claim 142 wherein the gasoline introduced into said engine is unleaded, oxygenated gasoline (f).

179. The method of claim 142 wherein the gasoline introduced into said engine is unleaded, oxygenated gasoline (g).

180. The method of claim 142 wherein the gasoline introduced into said engine is unleaded, oxygenated gasoline (h).